WORKSAFE
Mahi Haumaru Aotearoa

Protective clothing and equipment for working with or near asbestos

A guide for PCBUs

Consultation draft
September 2023

When reviewing this draft guidance please note the following:

- This draft guidance forms part of a wider suite of asbestos related guidance currently under development.
- Please see: WorkSafe's Consultation webpage for more information on the other pieces of asbestos guidance under development.
- This draft does not necessarily present WorkSafe's final position on any matters contained within it.
- The current Approved Code of Practice: Management and removal of asbestos, and other published guidance should still be referred to as WorkSafe's primary guidance for managing asbestos.
- Please use the submission feedback form provided on WorkSafe's Consultation webpage to provide your feedback.

Submissions close Monday 2 October 2023

Completed submission forms can be sent to:
guidanceandeducationdevelopment@worksafe.govt.nz

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1.0 About this guidance

1.1 What is this guidance about?

This guidance provides information about personal protective equipment for working with or around asbestos. It can help persons conducting a business or undertaking (PCBUs) to meet their duties under the Health and Safety at Work Act 2015 (HSWA) and the Health and Safety at Work (Asbestos) Regulations 2016 (Regulations).

1.2 Who should read this guidance?

This guidance is for PCBUs that carry out any work where there is a risk of exposure to asbestos fibres.

In this guidance, 'you' means the PCBU. A PCBU is an individual or a company, but it can also be other types of organisations. More information about PCBUs is available on the WorkSafe New Zealand website: [Who or what is a PCBU? | WorkSafe]

1.3 What work is covered by this guidance?

This guidance covers any work where there is a risk of exposure to asbestos fibres.

There are many industries where workers may encounter asbestos. Some examples include:

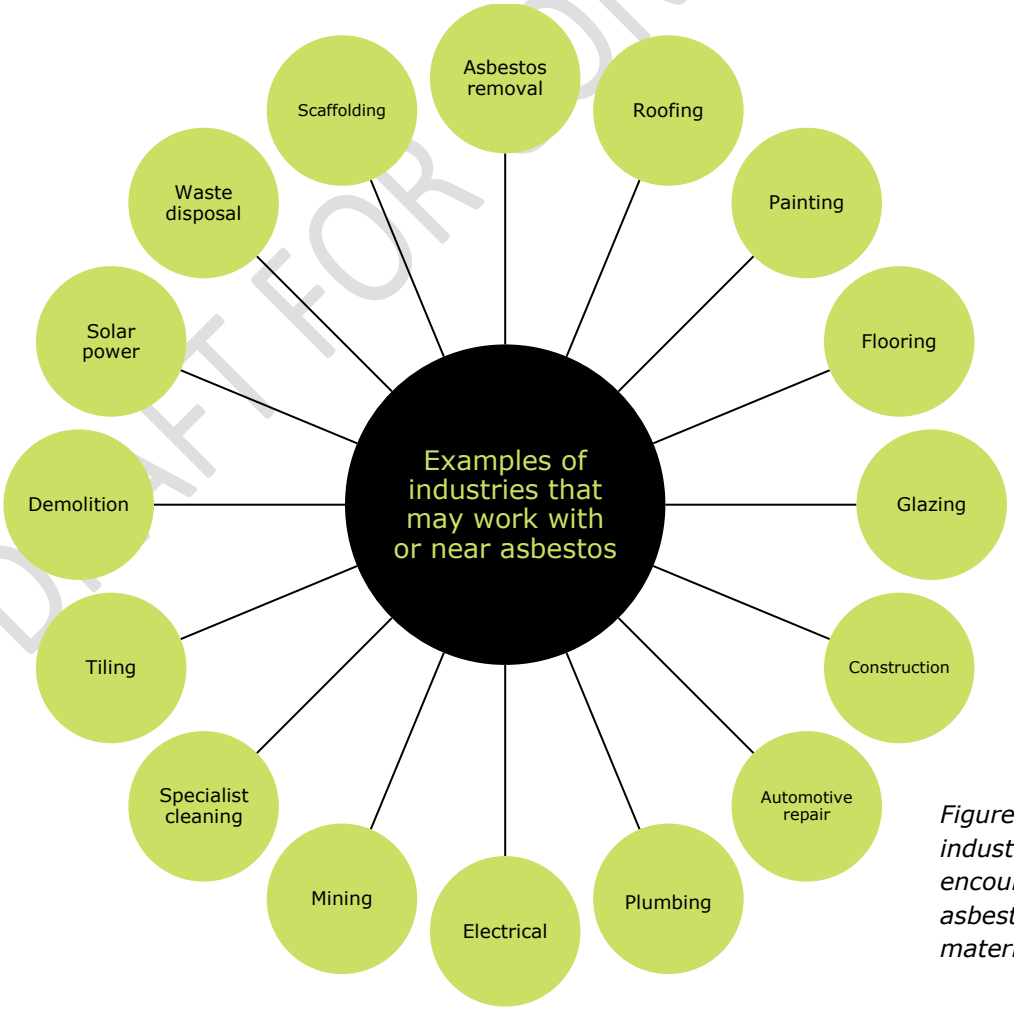

Figure 1: Examples of industries that may encounter asbestos or asbestos-containing materials

1.4 What workers are covered by this guidance?

This guidance covers all workers that work in environments where there is a risk of exposure to asbestos. Examples include:

- employees of PCBUs involved with the management of asbestos in residential and commercial properties
- employees of PCBUs that carry out work on or near asbestos or asbestos containing material (ACM)
- employees of PCBUs that carry out work in environments where there is likely to be airborne asbestos fibres
- employees of PCBUs that own or manage property that contains asbestos or ACM
- labour hire, temporary workers, and apprentices of such PCBUs.

1.5 What are the risks of working with or near asbestos?

Anyone that works with or near products that contain asbestos is at risk of exposure to asbestos fibres.

Breathing in airborne asbestos fibres can cause them to get trapped in the lungs, leading to serious health issues such as lung cancer, mesothelioma, and asbestosis. The health risks increase when:

- more asbestos fibres are inhaled
- exposure to asbestos happens more often
- exposure happens over a long period of time.

Diseases caused by asbestos often cannot be cured. They can cause severe symptoms and can be life-threatening. In Aotearoa New Zealand, more than 200 people die each year from diseases caused by asbestos.

1.6 More information about asbestos in New Zealand and asbestos legislation

For more information about the health risks of asbestos and the history of asbestos management in New Zealand see: [placeholder for Asbestos in New Zealand QG]

For more information about the laws and regulations governing asbestos in New Zealand see: [placeholder for Asbestos Special Guide]

2.0 General requirements for workplace PPE

2.1 Introduction to personal protective equipment

Personal protective equipment (PPE) is any equipment that will help to protect the user against health or safety risks at work. Examples of PPE are showed in Figure 2 below.

PPE is the last line of defense and is not meant to be the sole method of reducing risk. PPE provides protection for workers when other reasonably practicable control measures cannot adequately eliminate or minimise risks to worker health and safety.

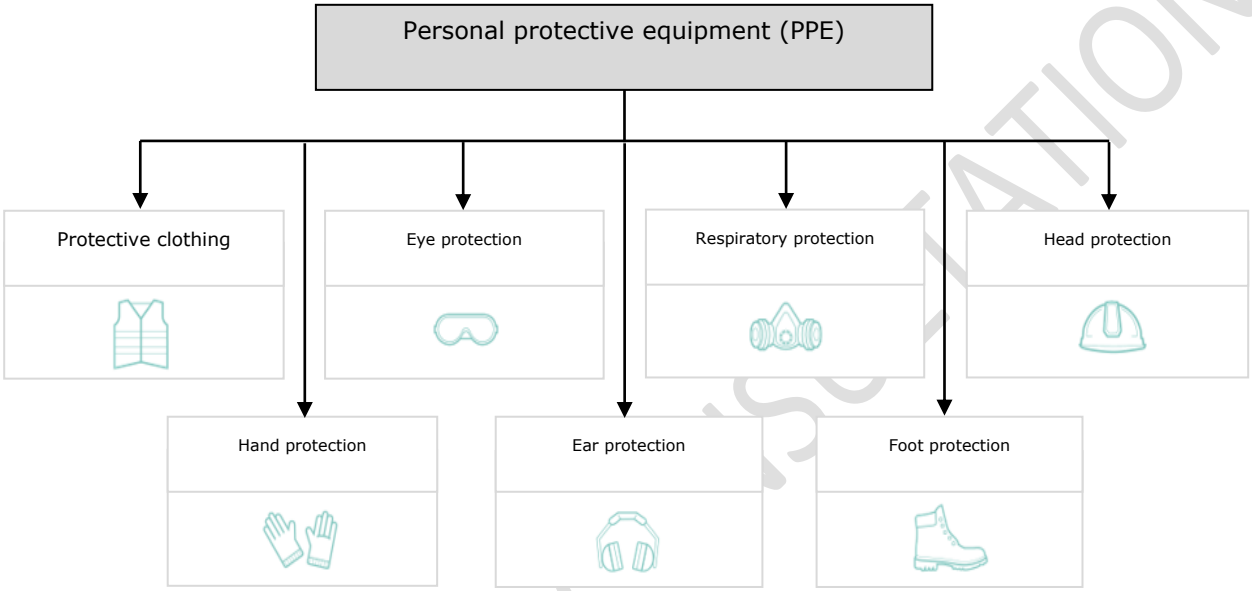

Figure 2: Examples of PPE

2.2 PPE for minimising the risk of asbestos exposure

Suitable PPE is required for any work where there is a risk of exposure to asbestos fibres. The types of PPE that are commonly used when working on or near asbestos are shown in Table 1 below.

Type of PPE	Example	Purpose
Protective clothing	Coveralls	Protective clothing helps to prevent contamination of workers' clothing with asbestos fibres. This helps to minimise the risk of spreading asbestos fibres (for example, into workers' homes).
Respiratory protective equipment	Respirator with filter	Respiratory protective equipment helps to minimise asbestos exposure to the lungs.
Foot protection	Gumboots and shoe coverings	Foot protection that is easy to clean helps to prevent the spread of asbestos fibres away

		from the work site.
Hand protection	Single-use gloves	Minimises the risk of asbestos fibres getting stuck under workers' fingernails or getting into cuts and grazes.
Eye protection	Safety goggles	Protects the eyes from dust and other particles.

Table 1: Types of PPE commonly used when working on or near asbestos

Your workers may need other types of PPE in addition to PPE for working with asbestos. The types of PPE your workers need to use will depend on the type of work they are doing.

You should engage with your workers when deciding on the most appropriate PPE for their tasks and working environment.

2.3 Who can provide PPE?

You must provide PPE to your workers if you are the PCBU that is directing the carrying out of work at a workplace (unless PPE has been provided by another PCBU in the contracting chain).

If there is more than one PCBU with a duty to provide workers with PPE, you will need to consult with each other to make sure suitable arrangements are in place to provide that PPE.

Workers can choose to provide their own PPE, but only if they genuinely volunteer to do so for their own comfort or convenience. If a worker chooses to provide their own PPE, you must still make sure that the PPE will provide appropriate protection for the worker.

You cannot pass on the cost of providing PPE (in full or in part) to your workers.

Adding PPE allowances to workers' pay to cover PPE expenses is not recommended

It is not reasonable to expect a worker to keep money aside from each pay period for future PPE purchases. There is a risk that workers may wear PPE that is past its use-by date, especially if they have not accrued enough allowance to cover an expensive item.

2.4 Providing replacement PPE

You must provide your workers with replacement PPE free-of-charge when it is needed, even if they volunteered to provide their own.

PPE must be clean, hygienic, and in good working order. You must make sure that PPE is maintained, repaired, or replaced so that it continues to minimise risk to the worker that uses it.

You must replace PPE whenever it becomes worn out, no longer provides adequate protection, or is past its use-by date. Replacing PPE should be assessed based on need.

2.5 PPE must be fit for purpose

PPE must be suitable for the nature of the work and associated hazards. It must also be a suitable size and fit so it is reasonably comfortable to wear.

2.6 Training your workers to use PPE

You must provide your workers with training on how to properly wear or use PPE and how to

store and maintain it. Training should be delivered by a competent person.

What is a competent person?

A competent person is someone who has the appropriate skills, training, knowledge, and experience to perform the task or role.

People that could be suitable to deliver training on the correct use of PPE might include:

- a health and safety consultant
- an experienced in-house worker, or
- a representative from the manufacturer of the PPE.

Train your workers before they start work. Training should include:

- what hazards workers might be exposed to
- how each item of PPE works
- why workers should wear PPE
- when workers should wear PPE
- how to make sure that PPE fits properly
- how to clean, store, and maintain PPE
- what to do if there is a problem with a worker's PPE.

New or inexperienced workers should be supervised in putting on and using PPE until they have shown they are competent to do so unsupervised.

Experienced workers may also need to be supervised in putting on and using PPE if changes are made to the PPE being used, or if they have not used the PPE recently.

You should review worker training regularly.

2.7 PPE for other people in the workplace

You must ensure, so far as is reasonably practicable, that the health and safety of other persons is not put at risk from work carried out as part of your business or undertaking.

You must make sure that other people who may be in the workplace (for example, visitors) wear PPE that minimises risks to their health and safety if it could be affected by your work.

You should be prepared to provide other people in the workplace with instructions or training about how to wear the PPE correctly. They must wear or use PPE in accordance with any information, training, or reasonable instruction you provide.

You can read more about other people in the workplace on the WorkSafe website: What to know about 'other persons' at work | WorkSafe

2.8 Manage any new risks that PPE might create

When you are assessing PPE needs, think about what new risks the proposed PPE may create and

discuss this with your workers. Discuss the proposed PPE with your workers and ask for their views on how new risks could be eliminated or minimised.

Examples of risks that could be created from PPE include:

- Heavy or thick clothing, which may cause workers to overheat or affect their mobility.
- Boot covers, which can cause a risk of slipping.
- Bulky masks, which may reduce workers' ability to communicate or affect their mobility in confined spaces.
- Long cabling, which may cause workers to become entangled.

2.9 Worker duties and PPE

Workers have a duty to follow reasonable instructions and requirements regarding PPE, such as:

- what PPE should be worn and when to wear it
- how PPE should be cared for and stored
- Workers should tell their supervisor as soon as they notice any problems with their PPE (for example, if it does not fit properly or is broken).

3.0 Protective clothing for working with or near asbestos

3.1 Coveralls for working with or near asbestos

Coveralls are a type of protective clothing used to reduce the risk of asbestos fibre exposure when working with or near asbestos. They provide a barrier between a worker's body and potential hazards (for example, dust, fibres, and other contaminants).

3.2 Disposable coveralls

Disposable (or single use) coveralls are preferred for most work on or near asbestos (Figure 3).

You must make sure that PPE used in asbestos removal or asbestos-related work is disposed of when the work has been completed, so far as is reasonably practicable. This is why it is preferable to use disposal coveralls.

Consideration	Details
Type	Disposable coveralls should meet the minimum requirements for chemical protective clothing resistant to penetration by airborne solid particles (BS EN ISO 13982-1). Disposable coveralls that are rated Type 5 (or equivalent) meet this standard.
Quality	Disposable coveralls should be of a suitable quality to prevent tearing. Coveralls that are too thin can be more likely to break at the seams.
Comfort	Disposable coveralls must be reasonably comfortable for workers to wear.
Fit	Disposable coveralls should be: - fitted with a hood and elasticated cuffs - one size bigger than the worker would normally wear to minimise the risk of tearing at the seams. - The fitted hood should be worn over the top of respirator straps and the arms of any eye protection equipment. - Leg cuffs should be worn over footwear (not tucked into footwear). - Arm cuffs should be worn over the top of gloves. - Loose elasticated cuffs should be sealed up with tape.
Other considerations	Disposable coveralls should not have external pockets, Velcro fastenings, or other features that are difficult to decontaminate.
	Waterproof disposable coveralls may be needed if the work on or near asbestos is carried out outdoors.

Table 2: Things to consider when choosing suitable disposable coveralls

Figure 3: Disposable coveralls with elasticated arm and leg cuffs

Important

Your workers should never take disposable coveralls home or reuse them.

Used disposable coveralls must be disposed of as asbestos waste. They should never be reused.

3.3 Reusable coveralls

Reusable coveralls should only be used where necessary (for example, PPE for emergency services that needs to protect against fire as well as asbestos fibres).

You must make sure that reusable coveralls are maintained in good working order.

3.4 Decontaminating reusable coveralls

If reusable coveralls are used in asbestos removal or asbestos-related work and are contaminated, you must ensure that before they are removed from the site they are:

- kept in a sealed container that does not allow asbestos fibres to escape
- clearly marked as "ASBESTOS CONTAMINATED CLOTHING".

The coveralls should also be damped before placing in the container.

You must ensure the container is decontaminated before it is removed from the area.

If not disposed of, contaminated reusable coveralls must be decontaminated at a laundry facility that is equipped to launder clothing contaminated with asbestos.

Laundering asbestos-contaminated protective clothing does not guarantee that all asbestos fibres are removed from the fabric.

Important

Reusable coveralls should never be laundered at a laundromat or by a worker in their home.

3.5 Storing contaminated reusable coveralls

If it is not reasonably practicable to dispose of or launder contaminated reusable coveralls, they must:

- be kept in a sealed container that does not allow asbestos fibres to escape
- be clearly marked as "ASBESTOS CONTAMINATED CLOTHING"

be kept in the sealed container until they are reused for asbestos work.

4.0 Hand protection for working with or near asbestos

4.1 Gloves for working with or near asbestos

Gloves create a protective barrier between a worker's hands and potential contaminants, such as dust, fibres, and other harmful substances. They help to minimise the risk of asbestos fibres getting stuck under fingernails or getting into cuts and grazes, which can be difficult and painful to decontaminate.

4.2 Disposable gloves

Single-use disposable gloves are recommended for most work on or near asbestos, especially if large amounts of asbestos fibres are present. You must make sure that PPE used for asbestos removal or asbestos-related work is disposed of when the work is completed, so far as is reasonably practicable. This is why it is preferable to use disposal gloves.

Consideration	Details
Type	Disposable gloves suitable for working on or near asbestos are usually made of latex, vinyl, or nitrile. Low protein (powder free) latex gloves may reduce the risk of workers developing a latex allergy or skin problems compared with standard latex gloves. Non-latex disposable gloves should always be provided to workers that have an allergy to latex.
Quality	Disposable gloves should be made of good quality material. Gloves that are too thin can be more likely to tear.
Fit	Disposable gloves should be reasonably easy to put on and take off. They should fit close to the hand. Arm cuffs of coveralls should be worn over the top of gloves, not tucked into the gloves.
Comfort	Gloves must be reasonably comfortable to wear – they should not be too tight. If they are too big, they can slip or make it hard to grip things. If they are too small, they can be uncomfortable to wear and could tear more easily.

Table 3: Things to consider when choosing suitable disposable gloves

Important

Your workers should never take disposable gloves home or reuse them.

Used disposable gloves must be disposed of as asbestos waste. They should never be reused.

4.3 Reusable gloves

Reusable gloves should only be used where necessary (for example, if disposable gloves will not be durable enough for the work being carried out).

You must ensure that reusable gloves are maintained in good working order.

4.4 Decontaminating reusable gloves

If reusable gloves are used in asbestos removal or asbestos-related work and are contaminated, before they are removed from the site you must make sure that they are:

- kept in a sealed container that does not allow asbestos fibres to escape
- clearly marked as "ASBESTOS CONTAMINATED CLOTHING".

The gloves should also be damped before placing in the container.

You must ensure the container is decontaminated before it is removed from the area.

If reusable gloves are not disposed of, they must be decontaminated at a laundry facility that is equipped to launder clothing contaminated with asbestos.

Laundering asbestos-contaminated protective clothing does not guarantee that all asbestos fibres are removed from the fabric.

Important

Reusable gloves should never be laundered at a laundromat or by a worker in their home.

4.5 Storing contaminated reusable gloves

If it is not reasonably practicable to dispose of or launder contaminated reusable gloves (for example, if reusable gloves will be kept in the work area), they must:

- be kept in a sealed container that does not allow asbestos fibres to escape
- be clearly marked as "ASBESTOS CONTAMINATED CLOTHING"
- be kept in the sealed container until they are reused for asbestos work.

5.0 Foot protection for working with or near asbestos

5.1 Protective footwear

Protective footwear is used to:

- provide a barrier between a worker's feet and potential contaminants
- protect a worker's feet from impacts (for example, things being dropped)
- provide improved grip for walking on slippery or uneven surfaces.

Consideration	Details
Type	Protective footwear that may be suitable for working on or near asbestos includes: - gumboots - steel-capped shoes - rubber-soled shoes. Gumboots are generally the best option because they do not have laces and can be easily decontaminated. You should select the most appropriate safety footwear for the work that is being carried out. Protective footwear used for working on or near asbestos should not have laces or eyelets. Laces and eyelets can easily become contaminated with asbestos fibres and are difficult to decontaminate.
Quality	Protective footwear should be made of good quality, durable material. Good quality protective footwear is less likely to split, break down, or lose comfort over time.
Fit	Protective footwear should fit in much the same way that a worker's normal shoes do. They should not be too tight or too loose. Footwear should have some space to allow for normal swelling of the feet and layers of insulation when needed (for example, thicker socks in cold weather or an insole to improve comfort). Leg cuffs of coveralls should be worn over the top of protective footwear, not tucked into the top of the footwear.
Comfort	Protective footwear must be reasonably comfortable to wear. Footwear that does not provide enough support can cause pain, blisters, and other foot problems. Each worker should have their own pair of protective footwear to minimise the risk of foot infections being spread.

Table 4: Things to consider when choosing suitable protective footwear

Protective footwear should be stored upside down when not in use to minimise the risk of asbestos contaminating the inside of shoes and boots. You should provide storage that allows footwear to be stored in this way.

You must ensure that protective footwear is maintained in good working order.

5.2 Disposable shoe covers

Disposable shoe covers are designed to fit over the top of shoes or boots to minimise contamination of shoes and boots (Figure 4). They should cover the whole shoe or boot and should be secured above the ankle.

Disposable shoe covers should have an anti-slip sole design.

Figure 4: Gumboots (left) and disposable shoe covers covering gumboots (right)

Important

Your workers should never take disposable shoe covers home.

Used disposable shoe covers must be disposed of as asbestos waste. They should never be reused.

Leg cuffs of coveralls should be worn over the top of shoe covers. They should not be tucked into the top of shoe covers.

5.3 Decontaminating reusable footwear

If it is not reasonably practicable to dispose of used footwear as asbestos waste, the footwear should be decontaminated.

Decontaminating footwear should include:

- vacuuming using a Class H vacuum cleaner with a brush attachment, and
- wiping with wet rags or wet wipes.

The contents of the Class H vacuum cleaner and any used rags and wipes must be disposed of as asbestos waste.

5.4 Storing contaminated reusable footwear

If it is not reasonably practicable to dispose of or launder contaminated reusable footwear, they must:

- be kept in a sealed container that does not allow asbestos fibres to escape
- be clearly marked as "ASBESTOS CONTAMINATED CLOTHING".
- be kept in the sealed container until they are reused for asbestos work.

6.0 Respiratory protection for working with or near asbestos

6.1 Respiratory protective equipment

Respiratory protective equipment (RPE) helps to protect the wearer from inhaling hazardous substances in the air. When working on or near asbestos, RPE can help to minimise the risk of exposure to asbestos fibres.

You must make sure that your workers wear appropriate RPE whenever they are working on or near asbestos. The higher the risk of exposure to asbestos, the higher the level of protection that RPE should provide.

6.2 Selecting the most appropriate RPE for the hazard

To choose appropriate RPE for the hazard your workers may encounter, you will need to know:

- the level of exposure in the workplace, and
- the level of exposure that your workers may be exposed to when they carry out their work.

In some work situations, it is possible for the level of harmful airborne contaminants to exceed the capability of the RPE to protect the worker. The more contaminated the workplace air is likely to be from the work being carried out, the more protective the RPE needs to be.

When you are thinking about the most appropriate RPE to protect your workers from asbestos exposure, consider:

- whether the level of protection given by the RPE is suitable for the level of air contamination and the work being carried out, and
- whether the filter in the RPE is suitable for the type of airborne contaminants in the workplace.

Important

Asbestos may not be the only hazardous substance your workers could interact with in the workplace. Consider any other hazardous substances when you carry out your risk assessment.

The RPE you select for your workers must provide protection from exposure to asbestos **and** any other hazardous substances in the workplace.

If you identify a hazardous substance in the workplace, refer to the safety data sheet for information about the most appropriate RPE and other PPE to use.

Your decision about the type of RPE suitable for your workers should be informed by your risk assessment. You can read more about managing work risks on the WorkSafe website: How to manage work risks | WorkSafe

Appropriate RPE should be selected by a competent person that is knowledgeable of the working conditions and the limitations of RPE.

A safety equipment supplier, occupational hygienist, or consultant may be able to help you select the most suitable RPE for your workplace.

6.3 Negative pressure respirators

Negative pressure respirators use one or more filters to purify the air that is breathed in. Inhaling creates negative pressure, which draws contaminated air through the filter. Examples of negative pressure respirators are shown in Figure 5, Figure 6, and Figure 7 below.

Figure 5: Half face-piece particulate respirator with P2 cartridges

Figure 6: Disposable half face-piece particulate P2 respirator

Figure 7: Full face-piece respirator with cartridge

6.4 Positive pressure respirators

Positive pressure respirators use an independent supply of air that is suitable for breathing (for example, an air cylinder). They always maintain a positive pressure inside the facepiece.

Positive pressure respirators prevent contaminated air being inhaled even if there is a leak in the seal between the face and the facepiece. They are generally used where the risk of asbestos exposure is high.

WorkSafe New Zealand must be notified of any work that involves a worker breathing compressed air, or anything other than air.

Type	Details
Powered air-purifying respirators (PAPRs) (Figure 8)	PAPRs use a battery-powered blower to draw air through the filters or cartridges and push it into the facepiece.
Supplied-air respirators (SARs) or air line respirators (Figure 9)	SARs (or air line respirators) supply clean air from a tank of compressed air or through an air line.
Self-contained breathing apparatus (SCBA) (Figure 10)	SCBAs have their own air supply supplied from a high pressure tank that is carried by the user.

Table 5: Types of positive pressure respirators

Figure 8: Powered air-purifying respirator

Figure 9: Supplied-air respirator

Figure 10: Self-contained breathing apparatus

6.5 Filters

The RPE you provide for your workers must have an appropriate filter. Particle filters are classified into three groups (Table 6).

Type	Details
P1	P1 filters are also known as low efficiency filters. They are not recommended for work on or near asbestos because they cannot effectively filter asbestos particles.
P2	P2 filters are also known as medium efficiency. They stop 94% of airborne particles from being inhaled. P2 filters do not provide the maximum protection for working with or on asbestos material.
P3	P3 are also known as high efficiency filters. They stop 99.95% of airborne particles from being inhaled. P3 filters provide the maximum protection for working with or on asbestos material, and should be used for licensed asbestos work.

Table 6: Classifications of RPE filters

You must ensure that the filters you select for your workers to use:

- provide suitable protection for the work being carried out, and
- work effectively in the conditions of the workplace.

The length of time that a particulate filter can be used for work on or near asbestos depends on:

- the quality of the filter
- how well the filter is maintained
- how often the filter is being used
- the amount of particles the filter is filtering.

You should make sure that your workers replace filters if they are damaged, or if they notice a change in their ability to breathe easily.

There is no overall rule about when filters on respirators should be changed – each situation will be different. You should ask the manufacturer, or a competent person, about when and how filters should be changed.

Filters should be maintained according to the manufacturer's instructions.

6.6 Minimum level of RPE for work procedures

Table 7 provides some examples of work procedures and the **minimum** level of RPE that may be suitable to minimise the risk of asbestos exposure.

Important

The information in Table 7 is for reference only. You should select RPE that can offer better protection than the minimum required to minimise the risk of exposure to asbestos fibres.

- The minimum recommended respirator assumes that a **non-disposable face mask** will be used along with suitable filters that are in good working order. It also assumes that:
  - the wearer is clean shaven
  - the wearer is trained to use their RPE correctly, and
  - the wearer has been fit tested and a good seal is maintained for the full duration of the work being carried out.
- The typical dust level value represents the concentration of airborne asbestos when the process is carefully carried out using **good control measures and safe practices**.
- Poor work practices or inadequate control measures may result in higher dust level than the typical value.
- Verify the dust level in your actual situation by an appropriate testing method (for example, air monitoring).

Example work procedure	Typical dust level (fibres/mL)	Minimum recommended respirator
Removing non-friable flooring using controlled wet removal	0.01	Half-face mask with P2 filters
Removing asbestos cement sheeting using controlled wet removal	Up to 0.5	Half-face mask with P2 filters
Stacking asbestos cement sheets		
Drilling asbestos insulating board with shadow vacuuming or local exhaust ventilation	Up to 1.0	Half-face mask with P2 filters
Removing asbestos insulating board (including millboard) using controlled wet removal	Up to 3.0	Full-face mask with P3 filters
Cleaning asbestos cement roofing using wet wire brushing	1.0 – 3.0	Full-face mask with P3 filters

Drilling asbestos insulating board overhead without local exhaust ventilation	5.0 – 10.0	Full-face powered air purifying respirator with P3 filter; or Self-contained breathing apparatus positive pressure demand
Hand sawing asbestos insulating board		
Removing spray and other insulation products using controlled wet removal	14.4	Full-face powered air purifying respirator with P3 filter; or Self-contained breathing apparatus positive pressure demand

*Table 7: Examples of types of asbestos work and the **minimum** level of RPE that may be suitable*

6.7 Selecting the most appropriate RPE for the worker, task, and environment

As well as making sure the RPE you select is suitable to minimise the risk of exposure to asbestos fibres, you also need to make sure it is suitable for:

- the individual worker that will wear it
- the tasks the worker will be carrying out
- the environment the worker will be working in.

Table 8 provides examples of worker, task, and environment factors that should be considered when selecting RPE.

Type	Details
Intensity of work	- High intensity work activities can increase breathing and sweating, which can affect how well some RPE performs. - Sweating can cause facepieces to slip and leak. - Different workers may respond differently to work of the same intensity. For example, one worker may find a work activity to be medium intensity, while another may find the same activity to be high intensity.
Wear time	- Tight-fitting masks can become uncomfortable to wear for long periods.
Temperature and humidity	- Wearing RPE in high temperatures or in humid conditions can increase heat stress, sweating, and discomfort.
Facial hair and markings (for example, scars, cuts, moles, and warts)	- Facial hair and markings can affect how a mask seals to the face. Workers should be clean shaven for RPE to be effective, if it requires a good face seal.

Glasses and contact lenses	- Glasses with side arms are not compatible with some face masks because they can break the seal with the face. - Workers that wear contact lenses may find them uncomfortable if they are worn for long periods of time. - If contact lenses move around or get stuck in the eye, the worker may need to remove the RPE quickly to replace them. - Eye glass hangers used in full face respirators may be suitable for some workers who cannot use contact lenses.
Communication	- RPE can affect a worker's ability to communicate effectively with workers or other people around them.
Mobility	- RPE with trailing hoses can snag on surfaces and be a tripping hazard. - Bulky fan units and air cylinders can restrict a worker's ability to move around easily in tight spaces.

Medical conditions	- Some medical conditions can make wearing RPE difficult for some workers. Examples include:
	  - chronic lung conditions (for example, asthma and chronic obstructive pulmonary disease)
	  - anxiety disorders (for example, claustrophobia and panic disorder)
	  - seasonal conditions (for example, colds and allergies)
	  - other conditions that affect breathing ability (for example, chronic sinusitis).

Table 8: Examples of worker, task, and environment factors to consider when selecting RPE

6.8 Fit test

RPE is only effective if it fits properly and is used according to the manufacturer's guidelines. RPE should form a tight seal to the wearer's skin.

Facial differences mean that one kind of RPE is unlikely to fit all. These differences can be significant between people of different genders and people of different ethnicities.

You should arrange for your workers to have a fit test for RPE before they start working on or near asbestos. Fit testing should be done in line with the recommendations set out in AS/NZS 1715:2009. Consider contacting a specialist or the supplier of the RPE you select to fit test your workers.

There are two types of face fit testing:

- A quantitative fit test uses an instrument to measure the amount of air that leaks around the seal of RPE. This produces a result called a fit factor, which is a measure of how well the RPE fits the user.
- A qualitative fit test uses a harmless substance (usually an aerosol) that the wearer can

smell or taste. If the wearer can smell or taste the substance while wearing the RPE, this suggests that the RPE does not fit correctly and is letting unfiltered air in.

Only quantitative fit testing provides objective, accurate, and reliable results.

Fit testing should be repeated:

- at least every year
- if a worker loses or gains weight
- if a worker has a change to their facial features (for example, after dental work).

Important

Facial hair (including beards, moustaches, stubble, and sideburns) makes RPE less effective. Facial hair prevents a tight seal from being formed around the face.

Workers should be clean-shaven if they need to use RPE for their work.

Glasses can also prevent an effective seal from being formed around the face if a full face-piece respirator is being used.

Workers should use contact lenses or modified glasses if they need to use a full face-piece respirator for work. If a worker is not able to use a reasonable alternative to their glasses, you should provide a positive-pressure air supply hood instead. A positive-pressure air supply hood may also be a suitable option for workers who cannot shave their facial hair.

6.9 Fit check

A fit check is a check to make sure that there is a good seal between the respirator and the face. You should make sure that your workers do a fit check each time a respirator is put on. Always follow the manufacturer's instructions when carrying out a fit check.

Negative pressure fit check

1. Block the cartridges with the palms of your hands.
2. Gently breath in and hold for about 10 seconds.
3. Check to see if the face-piece is collapsing slightly.
4. If the face-piece stays collapsed and there are no more leaks between the face and face-piece, the respirator is properly fitted.
5. If leaks are detected, the straps of the respirator should be adjusted, and the fit check should be repeated.

Positive pressure fit check

1. Block the exhalation valve with the palm of your hand.
2. Gently breath out and hold for about 10 seconds.
3. Check to see if the face-piece is bulging slightly.
4. If the face-piece stays bulging and there are no more leaks between the face and face-piece, the respirator is properly fitted.
5. If leaks are detected, the straps of the respirator should be adjusted, and the fit check should be repeated.

Figure 11: Fit check procedures

6.10 Hygiene and cleaning

You should make sure that each worker has their own RPE where practicable. Having individual RPE minimises the risk that respiratory infections (for example, COVID-19) will spread between your workers.

RPE should be labelled so it is easy to tell who it belongs to. This minimises the risk that a worker uses someone else's RPE.

If it is not reasonably practicable for each worker to have their own RPE, RPE should be disinfected after each use.

After use, RPE should be cleaned and stored in a sealable container in safe place away from areas contaminated with asbestos. Follow the manufacturer's instructions for cleaning and storage.

Important

Never store clean RPE with contaminated RPE.

6.11 Medical conditions

If your workers are likely to wear RPE regularly, you should encourage them to have a medical assessment. A medical assessment can help to determine if:

- a worker is fit to wear RPE long-term, and
- a worker is fit to wear RPE for long periods at a time.

You should consider any medical conditions that your workers may have when you are deciding on the most appropriate RPE.

Positive pressure RPE may be more suitable for workers that have medical conditions that make negative pressure RPE difficult to use.

6.12 Monitoring your RPE

We recommend you keep written records about your respiratory protection programme (which covers the selection, training, and use of RPE, as well as any health monitoring). The RPE used to do your work should be monitored in line with the recommendations set out in AS/NZS 1715:2009.

Your respiratory protection programme needs to be reviewed regularly to check that your requirements are still being met. Keep track of all changes made as a result of the reviews.

You should appoint a competent person to take responsibility for monitoring all aspects of the RPE you use to do your work.

Monitoring should be documented in writing, and should include:

- information about the hazards your workers may be exposed to
- the information that has been used to select RPE for your workers
- copies of relevant worker medical records and health monitoring evaluations
- records of RPE training for each worker
- records of fit testing for each worker
- information about fit testing procedures
- information about maintenance, cleaning, and decontamination processes
- information about replacement and repair processes
- information about how the monitoring process is audited.

7.0 Disposing of used equipment

All asbestos waste, including used disposable PPE contaminated reusable PPE, should be double bagged in heavy-duty (minimum 200 micron) plastic bags.

Twist the top of the bags tightly, fold the necks over (a 'gooseneck twist') and seal with adhesive tape so that the contents are fully enclosed (Figure 9). Clearly mark the bag as asbestos waste.

Asbestos waste can only be disposed of at authorised disposal sites. Check with your local authority on where these are and any requirements they may have.

Figure 12: Asbestos waste bag tied with a gooseneck twist.

8.0 More information

[Links to be added as guidance created]